MODIS Technical Team Meeting
Thursday, April 04, 2002
Building 33, Room E125

Vince Salomonson chaired the meeting. Present were Barbara Conboy, Bill Barnes, Jack Xiong, Bruce Ramsay, John Weier, Ed Masuoka, Steve Kempler, Eric Vermote, with Rebecca Lindsey taking the minutes.

1.0 Upcoming Meeting
- AGU, Spring, May 28-Jun 1, Washington, D.C.
- AMS, Atmospheric Radiation and Atmospheric Physics, first week of June, Odgen, Utah.
- MODIS Outreach Workshop on Land Cover Variables, June 3-4, University of Maryland, College Park.
- IGARSS 2002, June 24-28, 2002 in Toronto (abstract deadline past)
- MODIS Outreach Workshop on MODIS Vegetation Variables (VI/LAI/FPAR/NPP), July 15-19th 2002, University of Montana, Missoula, MT
- MODIS Science Team Meeting, Tentative, July 22-24, 2002
- Remote Sensing of the Earth's Environment from Terra, a workshop at the International Summer School on Atmospheric and Oceanic Sciences, August 25-30, 2002, L'Aquila Italy
- 34TH COSPAR Scientific Assembly, October 10-19, 2002, in Houston, TX, (abstracts due 1 May)
- MODIS Outreach Workshop on Land Surface Radiation Products, October 24-25, 2002, Boston

2.0 Meeting Minutes
Salomonson requested Ramsay provide additional information on a potential MODIS related action item associated with the NOAA/NESDIS Data Archiving Board (DAB). Ramsay subsequently provided information from the DAB as follows: The DAB agreed to test the impact of expanded end-to-end product and services oversight. A review by the Office of Satellite Data Processing and Distribution (OSDPD) and the Office of Research and Applications (ORA) is underway to identify improvements to the existing Satellite Products and Services Review Board (SPSRB) process. This review is expected to be completed by the summer (August 2002). The review will continue in parallel with the planned prototyping exercise. The prototyping goal is to identify a small group (perhaps two SPSRB Product Oversight Panels (POPs)) from the POPs to pilot the impact of new/future data sources. Example data sources that were discussed at the meeting included MODIS, AIRS, and NEXRAD.

Barnes reported that Roger Drake (SBRS) had discovered on Aqua MODIS a bright gold box in the rejection area for diffuser. Barnes showed a viewgraph of the problem. The box was put in to cover up cables, and there is concern that the sun catches the edge of the box and hits the solar diffuser (SD) cavity. Originally, the light was blocked by the backside of the nadir door when it opened. MCST thinks this has the potential to produce a 1-2% uncertainty if they don't fix it. Tomorrow they are going to try to remove this

problem. One possibility is to flatten the far corner of the box (the box is made of flexible material). It is gold because it reflects sun for thermal control. The SD doesn't see this directly (not in the field of regard), but it is inside the exclusion zone. If they can't fix, they will have to calculate the effect on the calibration. If they can't fix it, then when we get on orbit it will certainly require more measurements, yaws and rolls.

Esaias said this was a great concern for oceans, since if the Terra MODIS SD performed better, they wouldn't have to do 3-4 months of calculations every time the instrument changed. Barnes said that there is a specification regarding this, and we will have to see if it is over that spec. Esaias pointed out that if they just mash it down, we need to ask what are the chances the thing will pop back up. Barnes reported that Roger Drake from Santa Barbara Remote Sensing will go back down and make sure he is happy with whatever change they make.

Note: The Aqua Project Manager has emphatically provided assurances that this MODIS problem will be fixed although because of other problems in getting ready for Aqua launch, the process has been delayed. As of April 10, the circumstances had not yet permitted work on the MODIS problem to be accomplished.

Barnes added that scan correlated noise on Terra might be in a different mode than before the instrument shut down and all the resets.

Kempler reported that 6A05 came in, and it looks good. Distribution is running OK, but production has not been fully tested since the DAAC wasn't getting data while MODIS was down. They had to replace a HIPI board during MOSS tests. And they are currently not producing as they have taken apart a couple other machines to try to look into the problem. Per Salomonson's request at the previous week's meeting, they are looking into whether it is possible to produce the subsampled L1B product during the oceans reprocessing.

Masuoka reported that MOSS 7 (the end-to-end mission test) will restart on Sunday. The DAAC has a powerful system coming online that will hopefully demonstrate the ability to do the 1X for Aqua (the machine is called SPG11). Masuoka thinks MOSS will go OK, and that no delta MOSS should be required. They are testing Oceans production on mtvs2 (the reprocessing system) with 32 dual processor Linux systems. They are seeing Oceans reprocessing rates of 8 x (without Linux machines) and 13x (with). When all three disciplines are doing reprocessing the rates are 2x (without Linux) and 2.6x (with.

Masuoka reported that Janet Campbell wanted to use Level 2 Land Surface Reflectance for coastal oceans. Vermote said that we are archiving the L2G only. Vermote added that the surface reflectance group would appreciate her comment on whether the land/sea mask is sufficient. They can go farther out from shore with the mask if she wants. In the meantime, MODAPS will provide one or more Level 2 Surface Reflectance granules to Dr. Campbell for coordinates she will supply.

Vermote showed some examples of the Interdisciplinary Global Sampler Data Set for the CD/ftp site. He showed how the tool that will be on the CD works, and said that it should simplify accessibility. The tool will be supported by DAAC. The tool runs on Linux. The data are HDF format, and could be ready by ENVI or other similar applications. We will provide jpegs also so that people can see the product easily. The tool lets people load the data, display the bands, and re-project on the fly. It will also let users see the content of the SDS where the pointer is located on the map/image. Vermote showed surface reflectance, SST, LST, and global atmosphere examples. Esaias offered to reprocess the SST data to mask the land portions of the data set. Salomonson said that was a good idea.

Vermote said he thinks that he has all the ocean and atmosphere data, and is waiting on some stuff from land. He thinks they will be done in about 2 weeks.

Esaias reported that Miami has made the Direct Broadcast site public (http://www.rsmas.miami.edu/groups/rrsl/modis/). He said they had used it to look at recent data, and way out on the edges of SST, they can see the problem with the scan-correlated noise that was mentioned earlier. Denis Clark got an email from NASDA looking for support for MOBY for GLI. He will be willing to do that if they provide him the information needed. With respect to the software release, the GLI agreement says nothing about MODIS data at all, so they will have to look into that issue further.

On a related software note, Xiong said that he had developed some L1B quick data analysis software, (not a deliverable), and the NPP folks want it. Xiong wondered if Masuoka could advise on whether that is OK. Xiong will forward the request on to Masuoka for his consideration.

Finally, Lindsey introduced science writer John Weier, who will be taking turns with David Herring doing the MODIS Technical Team Minutes until a permanent replacement for Lindsey is found. Salomonson welcomed John Weier and noted that Rebecca Lindsey will be leaving the area on April 12. Salomonson expressed on behalf of the MODIS Team and many others the great appreciation owed her for all the excellent work and contributions she has provided in support of MODIS and Earth sciences in general.

3.0 Action Items
3.1 Discipline leads to meet to resolve the issue of beta-release code and science-quality code, and what we need to say about it.
Status: Open.
3.2 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.
Status: Open.